A NEW VARIETY OF PERITYLE STAUROPHYLLA (ASTERACEAE) FROM NEW MEXICO

Thomas K. Todsen
Biology Department, New Mexico State University,
Las Cruces 88003

Abstract

Perityle staurophylla (Barneby) Shinners var. **homoflora** Todsen is described from the San Andres Mountains of New Mexico.

Barneby (1957) described *Laphamia staurophylla* from La Luz Canyon on the west slope of the Sacramento Mountains in Otero County, New Mexico. Shinners (1959) transferred the species to *Perityle* without specimen citation. Niles (1970) further discussed the proper generic placement of the species and cited another location in Dog Canyon of the Sacramento Mountains. After our search program to define the distribution of the species had begun, Powell (1973) published a revision of *Perityle,* section *Laphamia,* in which he cited four of our new locations. Figure 1 shows the locations of the presently known populations, in the Sacramento Mountains of Otero County from the type locality on the north to Grapevine Canyon on the south; in the San Andres Mountains from Johnson Park Canyon in Socorro County on the north through Sierra County to Quartzite Mountain and Black Mountain in Dona Ana County on the south; in a few canyons at the high southern end of the Sierra Caballo (Sierra County); and in the center of the small Fra Cristobal range (Sierra County). Locations are disjunct because the required stable protected cliff habitat, on limestone or granite underlying limestone, is not continuous.

Perityle staurophylla is variable in leaf morphology [*Spellenberg and Todsen 2641* (NMC) from Goat Mountain in the San Andres Mountains shows strongly contrasting forms within one dm of each other], in the number of awns in the pappus, and in the number of ray flowers in the head. An extreme example of the latter variation occurs at the northern end of the San Andres Mountains. There a fault runs southeast along the west end of Rhodes Canyon and then east along the ridge of Hardscrabble Mountain dividing the species into two phases. Plants east and north of the fault have no ray flowers, whereas those west and south of the fault and those outside of the San Andres have ray flowers. The rayless phase differs sufficiently from the type to be considered a separate variety, identifiable by the following key.

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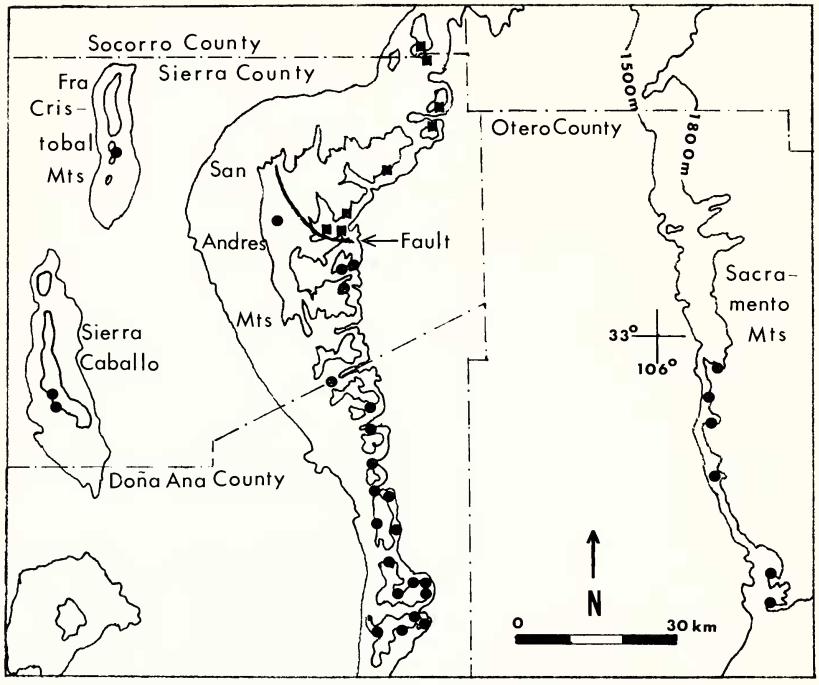

FIG. 1. Distribution of *Perityle staurophylla* in south-central New Mexico. Closed circles show known locations of var. *staurophylla* and closed squares those of var. *homoflora*.

Ray flowers present; mature achenes dark brown to black; plants elsewhere than the northern San Andres Mountains ..... var. *staurophylla*

Ray flowers absent; mature achenes silvery; plants from Rhodes Canyon and northward in the San Andres Mountains ..... var. *homoflora*

Perityle staurophylla (Barneby) Shinners var. *staurophylla,* Leafl. W. Bot. 8:168–170. 1957.—TYPE: USA, NM, Otero Co., Sacramento Mts., La Luz Canyon below High Rolls, crevices of dry n.-facing limestone cliff, 6300 ft, 2 Sep 1956, *Barneby 12889* (Holotype: CAS 405624!; isotypes: GH! K! NY! RSA! UNM 2286! US 2235449!).

Perityle staurophylla var. **homoflora** Todsen, var. nov.

Similis varietatis typici sed flores radiales absens vice praesens et achenia argentea vice nigra. $n = 17$.

TYPE: USA, NM, Sierra Co., San Andres Mts., Rhodes Canyon 17 km w. of Rhodes Canyon Range Center in S13 R3E T13S. Locally common on protected limestone bluffs, 1650 m, 7 Aug 1971, *R. Spellenberg and T. K. Todsen 2637* (Holotype NY; isotypes NMC, SRSC).

PARATYPES: USA, NM, Sierra Co., Rhodes Canyon 14 km w. of Rhodes Canyon Range Center in S17 R4E T13S, *Spellenberg and Todsen 2537* (NMC, SRSC); narrow canyon on se. side of Skillet Knob in S4 R4E T12S, *Todsen 2262* (NMC); se. slope of Salinas Pk. in S7 R5E T12S, *Todsen 2289* (NMC); n. side of Sheep Mt. in S18 R6E T11S, *Todsen 2286* (NMC); cliffs of Capitol Pk. in S7 R6E T11S, *Todsen* (recorded only); s. side of Johnson Park Canyon in S5 R5E T10S, *Todsen 2287* (NMC). Socorro Co., side canyon n. from Johnson Park Canyon in S31 R5E T9S, *Todsen 810921* (NMC).

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